SYNTAX: What is it ?

Structure and Grouping of words into sentences.

Study of Rules governing the above.

In its broader meaning , it is the study of Syntactic Knowledge (Competence)./Tacit / Inborn / Cognitive /Unconscious

Syntax= Grammar

Grammar= Theory of Language

Humans understand and produce an infinite number of sentences they've never heard before.

Sparrows tango on the trees !

Grammar understands and produces long sentences

(Recursiveness)

John told about the problem that you faced when you went to the hotel that has large meeting rooms in which you had conferences that dealt with the country's political problems that people are fed up with and intend to……

Grammar determines Grammatical Relations.

Bill killed John.   John killed.

Grammar (Syntax) precedes meaning ! How ?

Sentences without meaning but with syntax:

Colourless green ideas sleep furiously.

*Green sleep colourless sleep furiously.

Sentences consist of units (components) that combine together according to certain rules.[2]

The rules are the reflection of how the human brain stores language knowledge.

The rules are finite.

The knowledge and the use are infinite.

Many approaches have been proposed to study Syntax / Grammar.

Generative Grammar is a particular approach to the study of syntax.

Noam Chomsky launched GG back in the 1950s for the   of attempting to provide a set of rules that correctly predict which word combinations are correct.

The leading titles : Syntactic Structures (1957)

                              Aspects of the Theory of Syntax (1965)

The theory is Generative ?

It is mathematical : 4x+2y

When x and y are given the value of a number, the operation 'generates' a different set each time the number values change.

The generation is 'endless'.

The sentences of language are compared to mathematical operations.

The rules of language are said to be ==EXPLICIT==.

The explicit rules of language can ==produce== all sentences that are ==WELL-FORMED== and ==block== all the sentences that are ==ILL-FORMED.==

EXPLICIT RULES = GENERATIVE GRAMMAR

GG defines the syntactic structures of a language.

The rules are FINITE but the structures generated or blocked are INFINITE.

NOTATION :

Economical , neat , simple , consistent , general / universaln

Mathematics operates with symbols ; GG as well.

Exs: S(entence) ; N(oun) ; Art(icle) ; P(hrase)..

NP→ Art N   account for

A noun phrase ==consists of== an article and a noun.

…………………… ==rewrites as==……………………………..

Rewriting Rules

The rule is formal , and it says that a Noun Phrase in a language , say English , is generated by juxtaposing an Article to a Noun.

The book ; the boy ; the room ; the man….

However,

The happy man

NP-> Art Adj N

The very happy man

NP->Art Adv Adj N

The really very happy man

NP->Art Adv1 Adv2 Adj N

The whole phrase can be replaced by a Personal Pronoun , 'he'.

NP-> Art Adv1 Adv2 Adj <N; Pro>

The really very happy man who won the prize.

NP->Art Adv1 Adv2 Adj <N;Pro> S

CONSTRAINED

<….> either…. or …

Apart from 'man' (or the Pronoun 'he' that substitutes for it), all the other units / CONSTITUENTS are optional.

(…) optional

The rule then is :

NP-> (Art) (Adv1) (Adv2) (Adj) < N ; Pro> (S)

N is the head constituent.

The others are complements of the head.

Each phrase is named after its head.

XP……. where X is the head.

XP is a phrase ; its head is X. XP is phrasal ; X is lexical.

Let's recap:

Syntax is about 'sentence structure' , not to be confused with meaning→ Syntactic Organisation → Grammaticality

Syntactic Knowledge

The structure of language , any language , is 'arbitrary'.

-- is 'productive'

LAD = Language Acquisition Device

Universalism = L

Parameters = l

To understand how language structure works , and hence how the human brain works , we need to model syntax , that is to suggest a 'type of syntactic analysis' to account for how

the language human faculty reflects how the human brain is what it is , that is 'unique'.

<u>Syntactic Analysis:</u>

Traditional Grammar : Prescriptive

Modern Approaches:

ICA = Immediate Constituent Analysis

Parsing

Children love ice-cream.

(Children love ice-cream).

((Children)(love ice-cream))

((Children)((love)(ice-cream)))

Constituents , from the largest to the smallest.

Bracketing notation

Flying planes can be dangerous.

They can fish.

((Old) ((men) (and) (women)))

(((Old) (men)) (and) (women))

Phrase Structure Rules generate sentences and resolve syntactic ambiguity.

Grammar: Levels of Adequacy

Observational , descriptive , and explanatory.

S-> NP V (P)

Bill sleeps. NP Bill V: sleep   DEEP STRUCTURE

SURFACE STRUCTURE?

Bill is sleeping.

Bill slept.

Bill has slept.

Bill will sleep.

Bill will be sleeping.

These sentences , for any native speaker , have a lot in common.

John ate the cake.

The cake was eaten by John.

Idem

You sit down.

Sit down.

Idem

I speak German.

I don't speak German.

Idem

She is in the office.

Is she in the office.

Isn't she in the office ?

Idem

Conclusion : Syntax is not just generative , but it is mainly transformational.

Transformational Rules.

Passivization.

NPi V NPj - Structural Description

NPj V by NPi – Structural Change

Affix

S->N(P) V(P)

S->N(P) Aux V(P)

The book , I did read.

S-> NP VP

VP->VNP

A: PSG

B: TG

TGG

I live in Casablanca.

I don't live _____

Do you live _____?

I do live _____.

Bill resembles his father.

The box weighs five pounds.

He looks Asian.

NP V NP

Transformations are sometimes too powerful.

CONSTRAINT

SYNTACTIC CONSTRAINTS

Action verbs passivize

She owns two cars.

She has two brothers.

Verbs of having and being do not passivize.

Lexicon

PSG - DEEP STRUCTURE

TR   - SURFACE STRUCTURE

Lexicon

Ben speaks English.

English is spoken by Ben.

Speak:

Idiom